

TECHNOLOGY TRANSFER ACTIVITIES

Bluebell Field

DOE Class I

Publications

The following publications resulted from the Bluebell study:

The Utah Geological Survey *Petroleum News*, a newsletter keeps petroleum companies, researchers, and other parties involved in Utah's energy resources informed on the progress on various energy-related projects of the UGS.

January 1994, *DOE Class I Oil Program*.

June 1994, *DOE Class I Program*.

July 1995, *Bluebell project begins second successful year*.

May 1996, *Bluebell project readies for demonstration program*.

April 1997, *Bluebell field demonstration: new logs show fractures, oil*.

January 1998, *Bluebell field: second demonstration completed*.

April 1999, *Demonstration nearly completed in Bluebell field*.

The Utah Geological Survey *Survey Notes* is a newsletter that reaches a wide audience including industry, teachers, government, and the general public.

1995, *Bluebell project to test well-completion techniques*: v. 28, no. 1, p. 12-13.

1997, *Energy News*: v. 29, no. 2, p. 9.

1997, *Oil recovery demonstration program begins with acid treatment in the Bluebell field*: v. 29, no. 3, p. 10.

1997, *Energy News: Oil demonstration programs move into advanced phases*: v. 30, no. 1, p. 10-11.

Garner, Ann, 1996, *Outcrop study of the lower Green River Formation for the purpose of reservoir characterization and hydrocarbon production enhancement in the Altamont-Bluebell field, Uinta Basin, Utah*: Provo, Brigham Young University M.S. thesis, 192 p.

Garner, Ann, and Morris, T.H., 1996, *Outcrop study of the lower Green River Formation for the purpose of reservoir characterization and hydrocarbon production enhancement in the Altamont-Bluebell field, Uinta Basin, Utah*: Utah Geological Survey Miscellaneous Publication 96-2, 61 p.

Morgan, C.D., 1994, *Oil and gas production maps of the Bluebell field, Duchesne and Uintah Counties, Utah*: Utah Geological Survey Oil and Gas Field Study 15, 4 p., 7 plates, scale 1 inch = 0.8 miles.

Morgan, C.D., compiler, 1995, *Increased oil production and reserves from improved completion techniques in the Bluebell field, Uinta Basin, Utah - second annual report*: Utah Geological Survey Open-File Report 330, 115 p.

- Morgan, C.D., Sprinkel, D.S., and Waite, K.A., 1995, *Bluebell field drill-hole database, Duchesne and Uintah Counties, Utah*: Utah Geological Survey Circular 90 DF, 23 p. 1 diskette.
- Rajesh, J.P., 1998, *Reservoir characterization and reservoir simulations: fractured and nonfractured systems*: Salt Lake City, University of Utah Ph.D. dissertation, 401 p.
- Wegner, MaryBeth, 1996, *Core analysis and description as an aid to hydrocarbon production enhancement - lower Green River and Wasatch Formations, Bluebell field, Uinta Basin, Utah*: Provo, Brigham Young University M.S. thesis 233 p.
- Montgomery, S.L., and Morgan, C.D., 1998, *Bluebell field, Uinta Basin: reservoir characterization for improving well completion and oil recovery*: American Association of Petroleum Geologists Bulletin, v. 82, no. 6, p. 1113-1132.

Presentations and Abstracts

The following talks or poster presentations often with an associated published abstract have discussed the Bluebell study:

- Garner, Ann, 1995, *Reservoir characterization through facies analysis of the lower Green River Formation for hydrocarbon production enhancement in the Altamont-Bluebell field, Uinta Basin, Utah*: American Association of Petroleum Geologist Annual Convention Program with Abstracts p. 32A.
- Garner, Ann, 1995, *Reservoir characterization through facies analysis of the lower Green River Formation for hydrocarbon production enhancement in the Altamont-Bluebell field, Uinta Basin, Utah*: Physical and Mathematical Sciences and the Central Utah Section of the American Chemical Society Ninth Annual Spring Research Conference Program with Abstracts.
- Garner, Ann, and Morris, T.H., 1994, *Reservoir characterization through facies analysis of the lower Green River Formation for hydrocarbon production enhancement in the Altamont-Bluebell field, Uinta Basin, Utah*: Geological Society of America Program with Abstracts, v. 26, no. 7.
- Deo, M.D., 1998, *Fractured reservoir modeling in the Bluebell field, Uinta Basin, Utah*: Petroleum Technology Transfer Council Symposium, Salt Lake City, UT.
- Morgan, C.D., 1995, *A multi-disciplinary team approach to reservoir characterization of the Bluebell field, Uinta Basin, Utah*: American Association of Petroleum Geologists Bulletin, v. 79, no.6, p. 923.

- Morgan, C.D., 1995, *Bluebell field: increasing production in a fluvial-deltaic reservoir*: Utah Geological Association August Newsletter and luncheon.
- Morgan, C.D., 1997, *Improving primary oil recovery from a (DOE Class I) fluvial-dominated deltaic lacustrine reservoir Uinta Basin, Utah*: American Association of Petroleum Geologists Annual Convention Program with Abstracts, p. A85.
- Morgan, C.D., 1998, *Use of dipole shear anisotropy, dual burst thermal decay time, and isotope tracer logs for recompletion design and post-recompletion evaluation in complex reservoirs*: Petroleum Technology Transfer Council Symposium, Denver, CO.
- Morgan, C.D., 1998, *Increased oil production and reserves from improved completion techniques in the Bluebell field, Uinta Basin, Utah*: Petroleum Technology Transfer Council Symposium, Salt Lake City, UT.
- Morgan, C.D., 1998, *Second field demonstration of completion techniques in a (DOE Class I) fluvial-dominated deltaic lacustrine reservoir, Uinta Basin, Utah*: American Association of Petroleum Geologists Annual Convention Abstracts CD ROM.
- Tripp, C.N., 1995, *Reservoir characterization of potential targets for horizontal drilling in the Tertiary Green River and Wasatch Formations, Bluebell field, Uintah County, Utah*: American Association of Petroleum Geologists Bulletin, v. 79, no. 6, p. 925-926.
- Wegner, MaryBeth, 1995, *Facies analysis of well cores from the lower Green River Formation, Bluebell field, Uinta Basin, Utah: implications for identifying highly productive zones*: Physical and mathematical Sciences and the Central Utah Section of the American Chemical Society Ninth Annual Spring Research Conference Program with Abstracts.
- Wegner, MaryBeth, Garner, Ann, and Morris, T.H., 1995, *Reservoir characterization through facies analysis of core and outcrop of the lower Green River Formation: hydrocarbon production enhancement in the Altamont-Bluebell field, Uinta Basin, Utah*: American Association of Petroleum Geologists Bulletin, v. 79, no. 6, p. 926-927.
- Wegner, MaryBeth, Garner, Ann, and Morris, T.H., 1995, *Reservoir characterization through facies analysis of core and outcrop of the lower Green River Formation: hydrocarbon production enhancement in the Altamont-Bluebell field, Uinta Basin, Utah*: American Association of Petroleum Geologists National Convention (abstract not published).

Industry Outreach

The Utah Geological Survey Industry Outreach Program compiled and maintained a contacts list of all people and companies that were interested in the project. These people received copies of the quarterly and annual technical reports as well as the UGS Petroleum News and Survey Notes. The Outreach Program set up an exhibitor booth displaying information about

the project at the following industry conventions and programs:

1. American Association of Petroleum Geologists National Convention 1993 through 1999,
2. American Association of Petroleum Geologist Regional Meeting 1993 through 1999,
3. Society of Petroleum Engineers National Convention 1994,
4. Vernal (Utah) Petroleum Days 1994, 1996, and 1998;
5. Utah Geological Association and Four Corners Geological Society Symposium 1996,
6. Petroleum Technology Transfer Council Salt Lake City, 1998,
7. Interstate Oil and Gas Council National Meeting 1998.

Internet Web Page

The Utah Geological Survey maintained a Bluebell home page on its web site containing the following information: (1) a description of the project, (2) a list of project participants, (3) each of the Quarterly Technical Progress Reports, (4) a description of planned field demonstration work, (5) portions of the First and Second Annual Technical Reports with information on where to obtain complete reports, (6) a reference list of all publications that are a direct result of the project, (7) an extensive selected reference list for the Uinta Basin and lacustrine deposits worldwide, and (8) daily activity reports of the Michelle Ute 7-1, Malnar Pike 17-1, and Chasel 3-6A2 demonstration wells. Numerous inquiries resulted from the web page.